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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,079	05/03/2006	Timm Herman	16-571P/US	4771
27441 7590 08/30/2010 TAROLLI, SUNDHELM, COVELL & TUMMINO, LLP 1300 EAST NINTH STREET SUITE 1700 CLEVELAND, OH 44114				
EXAMINER NICHOLS IL ROBERT K				
ART UNIT		PAPER NUMBER		
3754				
MAIL DATE		DELIVERY MODE		
08/30/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/578,079

**Applicant(s)**

HERMAN, TIMM

**Examiner**

ROBERT K. NICHOLS II

**Art Unit**

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**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 10-15 and 17-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6, 13-15, 17-20, 24 and 25 is/are allowed.
- 6) ☒ Claim(s) 7-11 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Response to Amendment***

This office action is responsive to the amendment filed on 06/07/2010. As directed by the amendment: claims 1, 3, 6, and 22-24 have been amended, claim 9 and 16 has been cancelled, and new claims 25 have been added. Thus, claims 1-8, 10-15 and 17-25 are presently pending in this application.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

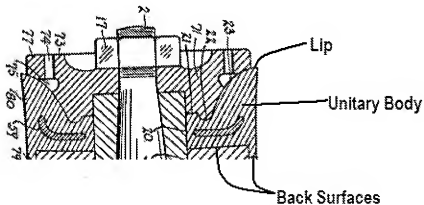
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 7, 8, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Kibele (US 1,849,096).**

Regarding claims 7, 8 and 21, Kibele discloses unitary body 80 of circular cross section (see portion of fig. 1) including spaced face and back surfaces (see portion of fig. 1); an axial bore extending between the surfaces for receipt of a push rod 2; the face surface including a nose section 21 surrounding the bore and an annular recess section 22 surrounding the nose section 21 (portion of fig. 1), the recess section 22 being perimetrically surrounded by a continuous lip; a perimetral surface extending axially from the face to the back surface (portion of

fig. 1); wherein the perimetral and face surfaces together defining a perimetral lip around a concave section (see fig. 1 and page 2, lines 28-29), the lip being of tapering thickness tapering from its thickest part at a location nearest the back surface forwardly to a thin termination at a juncture of the face and perimetral surfaces (portion of fig. 1): an annular disc/camming washer (plate 71) positioned in the annular recess section 22 (fig. 1 and page 2, lines 10-17); and the disc 71 including a peripheral surface co actable with the lip to transmit force against the lip and thence against a surrounding wall of a cylinder (see fig. 1 and page 2, lines 4-17).



### Portion of Figure 1

Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Southerwick (US 2,814,540).

Regarding claim 22, Southerwick discloses a piston assembly including a body 16' having a tapered recess for receiving a camming disc 17' (see fig. 6), the tapered recess being spaced axially from a face (i.e. face of inner lip 22) of

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the body 16' and increasing in depth as the recess extends to a perimeter of the body (see fig. 6), the camming disc 17' further including a central opening for the passage of the face of the body 16' to a forward most position of the piston assembly (see fig. 6); first and second annular tapered surfaces located on the camming disc 17', the first annular tapered surface originating at a first location spaced axially from a central axis of the camming disc 16', increasing the cross-sectional thickness of the first annular tapered surface laterally as it extends to a perimeter of the camming disc 16', the second annular tapered surface located about the perimeter of the camming disc 16'; and a smaller diameter of the second annular tapered surface being in contact with the recess during assembly and tapering to a relatively larger diameter extending away from the recess (see fig. 6). The Examiner notes that it is inherent that a smaller diameter of the second annular tapered surface is in contact with the recess and tapering to a relatively larger diameter extending away from the recess, at the beginning phase of inserting the camming disc into the recess during assembly.

**Claims 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Leach (US 2,630,006).**

Regarding claim 22, Leach discloses a piston assembly including a body 20/15/42/44 having a tapered recess for receiving a camming disc 52 (see fig. 3), the tapered recess being spaced axially from a face (face of member 42) of the body and increasing in depth as the recess extends to a perimeter of the body (see fig. 3), the camming disc 52 further including a central opening for the

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passage of the face of the body to a forward most position of the piston assembly (see fig. 3); first and second annular tapered surfaces located on the camming disc 52 (see fig. 3), the first annular tapered surface originating at a first location spaced axially from a central axis of the camming disc 52, increasing the cross-sectional thickness of the first annular tapered surface laterally as it extends to a perimeter of the camming disc 52, the second annular tapered surface located about the perimeter of the camming disc 52; and a smaller diameter of the second annular tapered surface being in contact with the recess during assembly and tapering to a relatively larger diameter extending away from the recess (see fig. 3).

Regarding claim 23, Leach discloses the first annular tapered surface of the camming disc 52 including an outwardly tapering thickness such that the camming disc 52 is thickest at its perimeter (see fig. 3).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kibele (US 1,849,096).**

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Regarding claims 10 and 11, Kibele discloses all the elements of the claimed invention except the material of the annular disc/camming washer being polymer or metal.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have constructed the annular disc/camming washer of polymer or metal, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

#### ***Allowable Subject Matter***

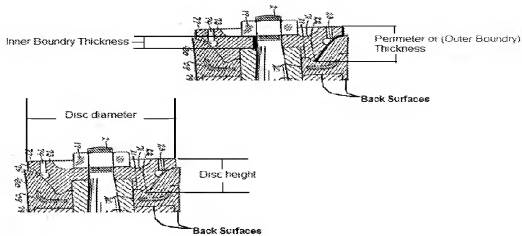
Claims 1-6, 13-15, 17-20, 24 and 25 are allowed. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments filed 06/07/2010 have been fully considered but they are not persuasive. Applicant argues that the disc of Kibele does not have a relatively small height compared to its diameter, and lacks an outwardly tapering thickness such that the disc is thickest at its perimeter.

In response to Applicants arguments the Examiner has provided below Figure 1 marked-up to better clarify the claimed limitations disclosed by Kibele.

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**Figure 1 marked-up*****Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT K. NICHOLS II whose telephone number is (571)270-5312. The examiner can normally be reached on Mon-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. K. N./  
Examiner, Art Unit 3754

/Kevin P. Shaver/  
Supervisory Patent Examiner, Art  
Unit 3754